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NOTES ON GEOGRAPHIC DISTRIBUTION

Pisces, Ophidiiformes, Ophidiidae, *Brotula barbata* (Bloch & Schneider, 1801): First record off Ceará, northeastern Brazil

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ABSTRACT: *Brotula barbata* is recorded for the first time from Ceará, northeastern Brazil. The species was previously known in the western Atlantic from North Carolina to southeastern Brazil, but there are some gaps between these regions. A single specimen was collected from a traditional line fishing fleet operating in the Mucuripe Sea, Ceará, during August 2007. We noticed a meristic difference between the specimen examined and the information from the literature. However this difference did not make the identification difficult. The new record of *B. barbata* fills geographic distribution gaps of this species in the western Atlantic.

The genus *Brotula* Cuvier 1829 currently comprises six marine species, among which only one is known to the Atlantic Ocean: *Brotula barbata* (Bloch and Schneider 1801), with records on both east and west coasts (Eschmeyer and Fricke 2009). In the western Atlantic the species is known from North Carolina (USA) to northern South America (Hubbs 1944; Cervigon 1991; Franke and Acero 1995; McEachran and Fechhelm 1998; Nielsen and Robins 2003) and in Brazil: Pernambuco and Bahia, northeastern region (Koike et al. 1977; Lopes et al. 2001; 2007; Menezes and Figueiredo 2003; Mincarone et al. 2008) and Rio de Janeiro, southeastern region (Bizerril and Costa 2001) (Figure 1).

This paper reports the first record of *B. barbata* in Ceará, northeastern Brazilian coast, filling geographic distribution gaps of this species and contributing to a better understanding of the ichthyofauna occurring off the coast of Ceará.

The specimen (Figure 2) was caught using a bottom line by a boat of the traditional line fishing fleet, preserved in alcohol and deposited in the Dias da Rocha Ichthyological Collection (CIDRO) of the Instituto de Ciências do Mar/ Universidade Federal do Ceará (Fortaleza, Ceará, Brazil). Morphometric and meristic characters were taken following Hubbs and Lagler (1958).

Material examined: CIDRO 66, 1 specimen (609.2 mm TL), Brazil, Ceará, Mucuripe Sea, 28 mi off Fortaleza, 03°15'–03°18' S, 38°20'–38°38' W (Figure 1), 90 m depth, August 2007.

Description: D. 113; A. 91; P. 25; V. 2; C. 6 (upper) + 5 (lower); lateral line scales 192; scales above lateral line (at anus level) 23; scales below lateral line (at anus level) 43; gill rakers (including rudiments) 5+17; branchiostegal rays 8. Measurements in percent of SL: body depth 21.9, head length 24.3, eye diameter 4.5, interorbital width 3.8, snout length 5.4, upper jaw length 11.6, predorsal length 27.8, preanal length 49.4, base of dorsal fin length 73.9, pectoral fin length 12.9, base of pectoral fin length 6.1 and caudal fin length 5.6. Head scaled and compressed laterally; opercular spine present; mouth nearly horizontal, supramaxilla present and maxilla surpasses vertical through posterior border of the eye; maxillae, palatine and vomer with villiform teeth in narrow rows, vomer V-shaped; basibranchial tooth patch absent; two pores below each eye; on both sides: snout with ten barbels (six

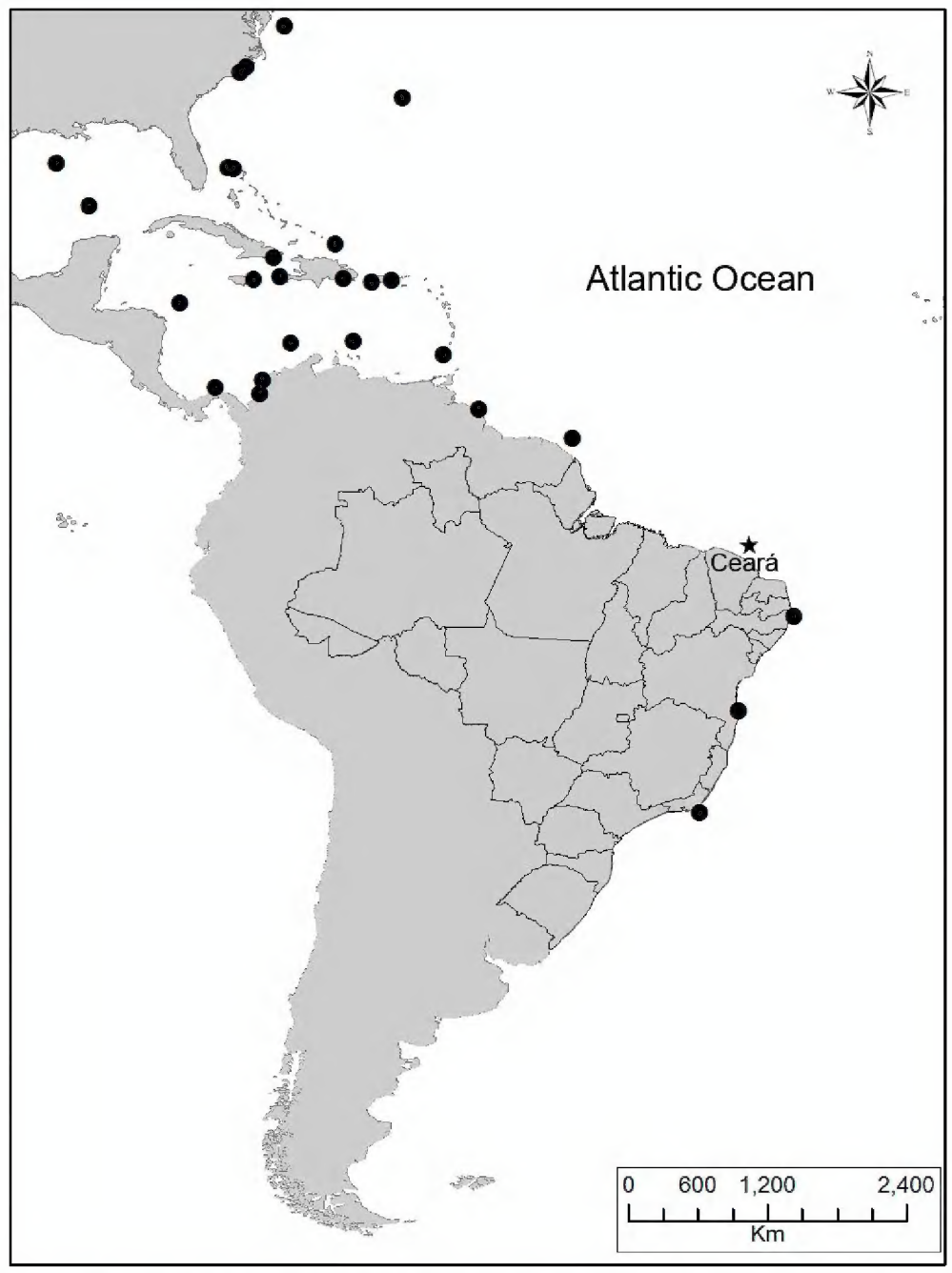

FIGURE 1. Geographical distribution of *Brotula barbata* in the western Atlantic (circles = literature records; star = new record off Ceará).

long and four short) and six pores on the edge, lower jaw with six long barbels and six pores and the anterior nostril with a long barbel and closer to the posterior nostril than to upper lip. Body covered with minute cycloid scales. Coloration: brownish, darker in the dorsum and in the fin margins (Figure 2).

A meristic difference between the specimen we examined and the information of *B. barbata* from the literature was noticed. The snout barbels vary between six in Nielsen and Robins (2003) and eight in Lopes et al. (2001), but ten barbels were detected in the snout of the specimen examined. Since this was the only difference detected, we identified the analyzed specimen as *B. barbata*.

Figure 2. *Brotula barbata* (CIDRO 66, 609.2 mm TL) caught in Ceará, northeastern Brazil.

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Literature Cited

Bizerril, C.R.F.R. and P.A.S. Costa. 2001. *Peixes Marinhos do Estado do Rio de Janeiro*. Rio de Janeiro: Fundação de Estudos do Mar (FEMAR), Secretaria de Estado de Meio Ambiente e Desenvolvimento Sustentável (SEMADS). 233 p.

Cervigon, F. 1991. *Los peces marinos de Venezuela*. Caracas: Fundación Científica Los Roques. 425 p.

Eschmeyer, W.N. and R. Fricke (ed.). 2009. *Catalog of Fishes*. Electronic Database accessible at http://research.calacademy.org/ichthyology/catalog. California Academy of Sciences, California, USA. Captured on 01 January 2010.

Franke, R. and A.P. Acero. 1995. Las especies colombianas del genero Brotula (Pisces: Ophidiidae). *Caldasia* 17(82-85): 597-602.

Hubbs, C.L. 1944. Species of the circumtropical fish genus Brotula. *Copeia* 1944(3): 162-178.

Hubbs, C.L. and K.F. Lagler. 1958. *Fishes of the Great Lakes region*. Michigan: University of Michigan Press. 213 p.

Koike, J., D.S. Guedes and M.J.A. Lima. 1977. Ocorrência de *Brotula barbata* (Bloch & Schneider), Pisces, Brotulidae, na costa do nordeste brasileiro. *Caderno Ômega* 1(2): 45-51.

Lopes, P.R.D., J.T. Oliveira-Silva, C.L.S. Sampaio and A. Vasconcelos. 2001. First record of *Brotula barbata* (Bloch, 1801) (Actinopterygii, Ophidiidae) at coast of Bahia State, Brazil (Western Atlantic Ocean). *Revista Brasileira de Zoociências* 3(1): 69-76.

Lopes, P.R.D., J.T. Oliveira-Silva, I.P. Fernandes, R.J. Chagas and P. Ferraz. 2007. Novos registros de *Brotula barbata* (Bloch, 1801) (Actinopterygii, Ophidiidae) para o litoral da Bahia, Nordeste do Brasil (Oceano Atlântico Ocidental). *Revista Mosaicum* 6: 31-36.

McEachran, J.D. and J.D. Fechhelm. 1998. *Fishes of the Gulf of Mexico: Myxiniformes to Gasterosteiformes*. Austin: University of Texas Press. 1120 p.

Menezes, N.A. and J.L. Figueiredo. 2003. Família Ophidiidae; p. 59. *In* N.A. Menezes, P.A. Buckup, J.L. Figueiredo and R.L. Moura (eds.). *Catálogo das espécies de peixes marinhos do Brasil*. São Paulo: Museu de Zoologia da USP.

Mincarone, M.M., J.G. Nielsen and P.A.S. Costa. 2008. Deep-sea ophidiiform fishes collected on the Brazilian continental slope, between 11° and 23° S. *Zootaxa* 1770: 41-64.

Nielsen, J.G. and C.R. Robins. 2003. Ophidiidae; p. 965-972 *In* K.E. Carpenter (ed.). *The Living Marine Resources of the Western Central Atlantic Volume 2. Bony Fishes Part 1 (Acipenseridae to Grammatidae)*. FAO Species Identification Guide for Fishery Purposes and American Society of Ichthyologists and Herpetologists Special Publication No. 5, Rome: FAO.

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